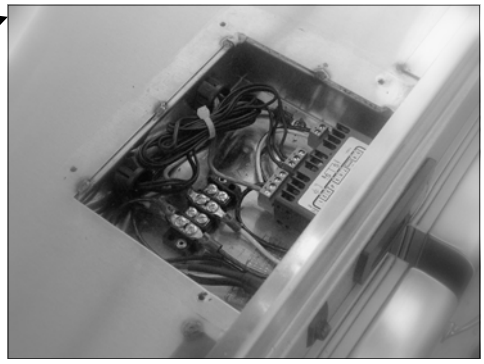
Alfresco

ARFG-42
SERVICE AND PARTS MANUAL

GENERAL COMPONENT LOCATION:



CONTROLLER LOCATION AND
MAIN POWER SWITCH (COVER REMOVED)

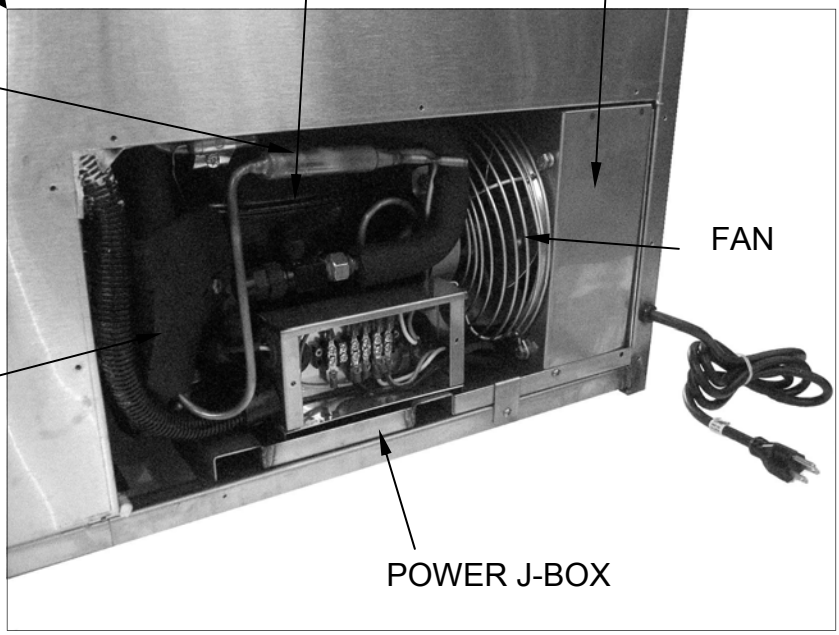
COMPRESSOR

CONDENSER

FILTER
DRIER

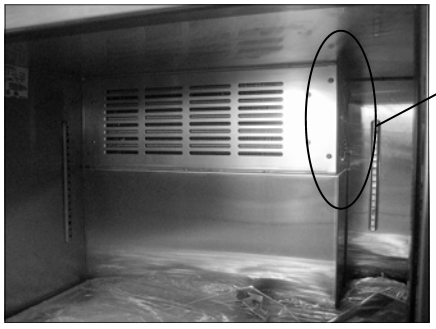
FAN

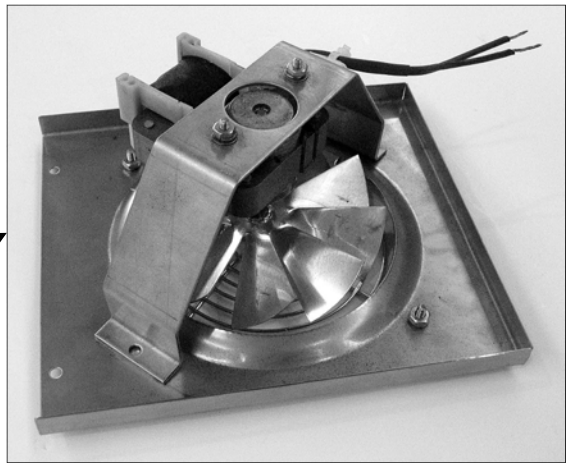
TXV
LOCATION



POWER J-BOX

EVAPORATOR
ASSEMBLY





EVAPORATOR
FAN REMOVED
FOR REPLACE-
MENT.
REMOVE PLATE
AND BRACKET
FOR FAN MOTOR
REPLACEMENT.

TROUBLESHOOTING AND SERVICE GUIDE:

The following is intended as a quick service guide designed to diagnose most common problems. It is intended to be used only as a guideline. Should the unit require actual replacement of components those must be done by a trained and licensed refrigeration professional. While the unit is within the factory warranty period, all repairs require prior factory authorization before the work is actually performed.

UNIT NOT COOLING:

- POWER TO THE UNIT: Is there power to the unit?. Is the voltage within ± 10% of 115 VAC? Low power conditions affect the amperage draw of the compressor, requiring more amperes on start up. If the amperage draw is too high, the compressor safety relay could trip leading to component premature failure. if the compressor is tripping on it's safety relay on startups, the unit will not refrigerate as required.

- COMPRESSOR NOT RUNNING: Is the compressor not running when the controller calls for cooling to begin?. (see point above). Verify that power to the compressor is correct and the starter and safety relays are working properly.

- CONDENSR FAN NOT RUNNING: Is the compressor running but not the condenser fan? The condenser fan is on the same circuit as the compressor. They both operate at the same time. Verify that the condenser fan receives power and the fan blades rotate freely. Verify if there is debris in the blades that prevents it from starting (ie: leaves, paper, grass clippings, etc…)

- VENTILATION IN THE UNIT: Does the unit have enough ventilation on the back to allow for free cool air to reach the condenser? Many installations have no outside ventilation reaching the condenser as they place the unit into a closed space that only re-circulates air discharged from the condenser "back" to the condenser reducing performance drastically. Verify that there is an outside source for fresh air into the condenser.

NOT HOLDING TEMPERATURE CORRECTLY:

- CONTROL SET POINT: Is the unit operating with the correct set point? Please verify according to the list provided in the controller programming on the following chapter of this booklet.

- OPERATING DIFFERENTIAL: The unit operates in a 3 degree differential on average depending on the quantity of items in the unit. The unit will cycle ON and OFF several times so the product temperature is an average of the cycle. (see section "Understanding the refrigeration cycle")

- DEFROST MODE: Is the unit currently in defrost mode?. The unit defrosts until the coil temperature reaches 50°F. This is not the temperature of the product, this is just the air temperature during defrost.

- EVAPORATOR COIL ICED UP: Is the evaporator coil iced up due to incorrect (too low) of a set point? Verify that the unit defrosts properly and the evaporator coil is clean of heavy frosting during operation.

NOISY OPERATION:

- DEBRIS IN THE BAN BLADE: Is there debris in the condenser fan blade? Not only can debris physically stop the fan blade from rotating (as discussed previously), but is can also block airflow thus preventing the unit for cooling. As the air get hotter in the unit from lack of airflow, the condenser fan will increase speed to allow more airflow.

- FULLY STOCKED: Is the unit fully stocked? If the unit is not properly stocked or half empty the unit will have to work harder. Air does not hold temperature, products do. If there is not product in the refrigerator the unit will turn ON and OFF several times per hour. If the unit is fully stocked, the run-time will be extended but also the off-time allowing the compressor to cool down properly between cycles. This will help the unit run more efficiently as several runs per hour will increase compressor temperatures thus requiring to work harder to cool down.

- TUBING RUBBING: Are there any tubes in the compressor area rubbing against each other? Is there any rubbing between the tubing and the condenser fan housing or fan motor itself? The installation of components at the back of the unit requires to have components closed together. During shipment and installation some of these components might shift rubbing each other. Please verify there are no lines rubbing or too close together as to touch when operating.

CONTROLLER SETTINGS AND ADJUSTING TEMPERATURES :

Your *ALFRESCO* refrigerator features an exclusive digital programmable thermostat (*see figure 1*) that controls all functions of the unit. The operating temperature of the unit is user-adjustable from 25°F to 45°F.

The refrigeration control has been preset at the factory for normal, everyday operation under standard room conditions. Should you require to change the temperature setting, higher or lower than the standard factory set of 35°F, this procedure can be done very quickly, as follows:

1. Press the "SET🔔" button for 1 second to display the set point temperature (35°F) default.
2. Hold the "SET🔔" key until the set point starts flashing.
3. Use the ▲❄ key to increase the temperature or ▼❄ key decrease the temperature.
4. Press the "SET🔔" button once more to confirm the value. The display will stop flashing.

Note: The ▲ "UP" and ▼ "DOWN" keys also serves as indicator lights to show when the compressor is ON or when the unit is on DEFROST mode.

Figure 1

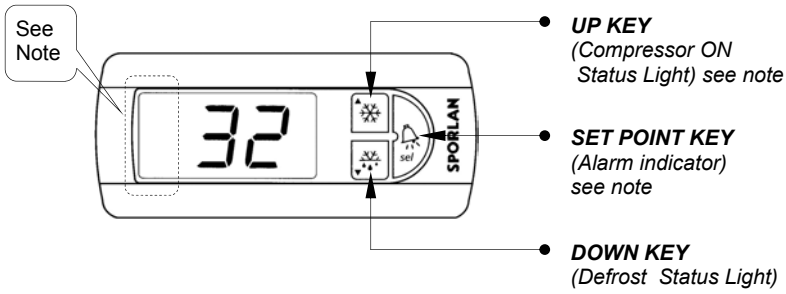


Figure 2

ADJUSTMENTS ITEMS TO REMEMBER:

- ► **FOR NORMAL OPERATION SET THE UNIT TO 35°F.**
- ► **PLEASE NOTE THAT THIS IS NOT THE INTERNAL REFRIGERATOR CABINET TEMPERATURE.**
- ► **DO NOT CHANGE THE TEMPERATURE SETTING MORE THAN 3°F AT A TIME.**
- ► **ALLOW 24 HOURS FOR THE REFRIGERATOR TO REACH A NEW TEMPERATURE SETTING.**
- ► **THE MOTOR WILL START AND STOP OFTEN. THIS IS NORMAL OPERATION.**
- ► **KEEP YOUR REFRIGERATOR LEVELED.**

NOTE: Depending on the controller ***revision model***, it will either have indicator lights on the buttons themselves (*see figure 2*) or (newer models) will have indicator symbols on the left side of the display. If so, these 3 status symbols will indicate the following:

- Shows when the compressor is ON
- Shows that there is an ALARM
- ❄ Shows the unit is on DEFROST

OPERATIONAL PARAMETERS

There are two sets of parameters that can be access on this controller. Some require a password, other do not.

1. Press the "SET🔔" button for **1 second** to display the set point temperature (**35°F**) default.
2. Hold the "SET🔔" key for at least **5 seconds once more** (the set point starts flashing and after 5 seconds the letters PS will appear on the screen). PS = PASSWORD
3. Release the "SET🔔" key.
4. At this point, press the "SET🔔" once more and use the ▲❄ or ▼❄ keys to reach the number 22 on the screen (this is your password).
5. Press the "SET🔔" key once more to return the display to "PS".
6. Use the ▲❄ or ▼❄ keys to cycle through the different programming parameters.
7. ALWAYS Press the "SET🔔" button for at lest **5 seconds** to exit the programming mode.

Review:

Please verify all programmed operational variables according to the list on the following page.
The ARFG-42 unit should now operate with peak efficiency.

Sporlan™ OMNI-Stat® Controller Settings ◄ Values to be changed from default

Model: 952892 - 120 VAC

Code:	Parameter:	Value	Default	UOM	Access	
					W/O PS	With PS
PASSWORD						
PS	Password	22	22	#	✓	
PROBE PARAMETERS						
/c	Ambient probe calibration	**0**	0	°F	✓	
/2	Measurement Stability	**4**	4	~		✓
/4	Probe to display (0=ambient / 1=product)	0	0	~		✓
/5	Unit of Measure (0=°C / 1= °F)	**1**	0	~		✓
REGULATION PARAMETERS						
rd	Regulating Differential	**3**	2	°F	✓	
r1	Minimum Allowed Temperature setting	**25**	-50	°F		✓
r2	Maximum Allowed Temperature setting	**45**	60	°F		✓
r3	Enable Def. alarm when max def. time reached	0	0	~		✓
r4	Automatic variation of set point - **NOT USED**	3	3	~		✓
COMPRESSOR PARAMETERS						
c0	Delay compressor after power on	0	0	Minutes		✓
c1	Minimum time between 2 compressor runs	0	0	Minutes		✓
c2	Compressor shut down minimum time	**2**	0	Minutes		✓
c3	Compressor Operation minimum time	0	0	Minutes		✓
c4	Compressor Safety (0=OFF / 100=ON)	**100**	0	~		✓
cc	Continuous Cycle Duration	4	4	Hours		✓
c6	Alarm Delay after continuous cycle	2	2	Hours		✓
DEFROST PARAMETERS						
d0	Defrost type (0=heater / 1=Hot Gas / 2=timed heater / 3=timed HG)	2	3	~		✓
dI	Defrost interval	**4**	8	Hours	✓	
dt	Defrost Ends Temperature	**50**	4	°F	✓	
dP	Max. Defrost Duration	**30**	30	Minutes	✓	
d4	Defrost after power on (0= NO / 1= YES)	0	0	~		✓
d5	Defrost delay after power on	0	0	Minutes		✓
d6	Block Display during Defrost (0= NO / 1= YES)	1	1	~		✓
dd	Dripping time after defrost	2	2	Minutes	✓	
d8	Alarm delay after defrost	1	1	Hours	✓	
d9	Defrost priority over minimum compressor time (0= NO / 1= YES)	0	0	~		✓
d/	Defrost probe - display temperature	~	~	~	✓	
dc	Time base for dI and dP (0= hrs / 1= minutes)	0	0	~		✓
ALARM PARAMETERS						
A0	Alarm and Fans Differential Temp	0	0	°F		✓
AL	Low temperature alarm (0= OFF)	0	0	°F	✓	
AH	Hight temperature alarm (0=OFF)	0	0	°F	✓	
Ad	Alarm Temperature delay	0	0	Minutes		✓
A7	Alarm imput detection delay	0	0	Minutes		✓
OTHER PARAMETERS						
H0	Serial Address (communications)	1	1	~		✓
H1	Alarm Relay Operation (0=Alarm w/relay ON - 1=Alarm w/ relay OFF)	1	1	~		✓
H2	0= Disable Buttons / 1=Enable Buttons	1	1	~		✓
H5	Identification for Programming	0	0	~	✓	
T	External Programming	~	~	~	✓	

UNDERSTANDING THE REFRIGERATION CYCLE:

The Refrigeration Controller unit that manages all the refrigerator operations and performance is a rugged and highly sophisticated commercial grade Sporlan Electronic Controller.

Like all refrigerators, as the unit cools and maintains the desired product temperature, it's internal temperature will fluctuate between ON and OFF periods depending upon ambient temperature, how many times the door is open and for how long it's held open.

To minimize ON (running) times and save energy, it is recommended to open the door for the smallest amount of time and frequency.

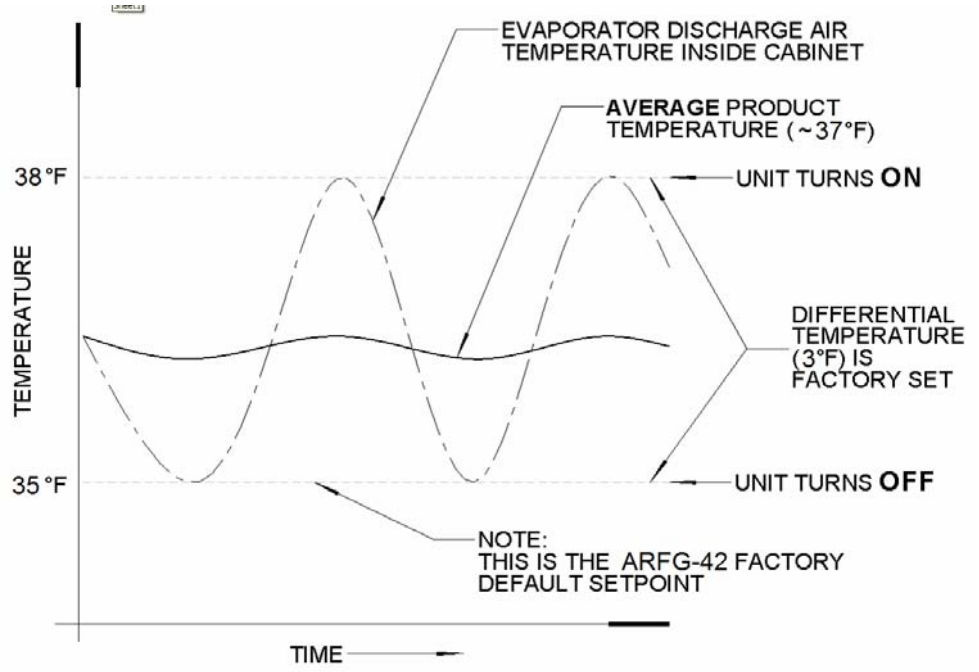
The ARFG-42 unit is factory preset with a set point of 35°F and with a 3°F differential cycle.

This means that the ARFG-42 unit will refrigerate until it reaches 35°F internal air temperature. At that point, the unit will turn OFF and will remain off until it reaches 38°F *(Due to the 3°F differential temperature cycle).*

It is important to understand that your product **will not** actually reach 38°F.

The "average" product temperature will settle somewhere midway between the ON and OFF set points (approximately ~ 37°F) depending on the product type.

Please refer to the following graph for a representation of the refrigeration cycle:



The 3°F differential is used to provide you with the best possible energy savings. A smaller differential would cause the unit to start and stop several times per hour wasting energy.

The Electronic Temperature Controller in the ARFG-42 allows the user to change and adjust the default set point (35°F) between 25°F and 45°F, consequently the product temperature will average lower or higher temperatures as desired.

Please refer to "CONTROLLER SETTINGS"

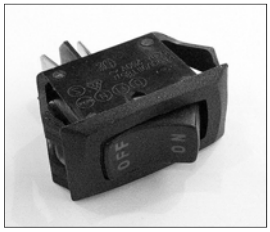
Always remember:
When the door is opened on the ARFG-42, the display will read the cabinet temperature at that very moment. That is not your product temperature.

ARFG-42 SERVICE PARTS LISTING:

The following is a list of all components and or hardware that are serviceable on the ARFG-42 refrigerator unit. Please refer to the picture and attached text for reference and identification.

ELECTRICAL COMPONENTS:

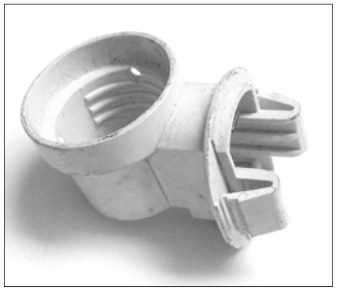
CONDENSER FAN
210-0105



MAIN POWER SWITCH
210-0021

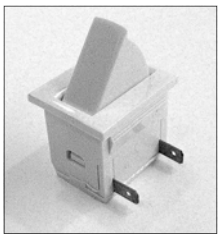
LIGHT BULB (COATED)
210-0245

MAIN POWER
CORD
210-0287



LIGHT SOCKET
210-0314

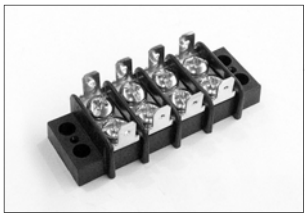
EVAPORATOR FAN
210-0265



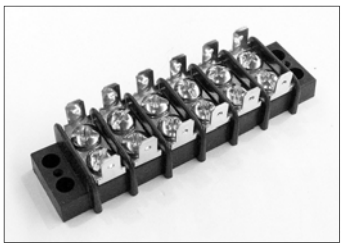
LIGHT SWITCH
210-0298

TEMPERATURE
CONTROLLER KIT
210-0030

TEMPERATURE CONTROL
SENSOR
210-0031



4 POSITION
TERMINAL BLOCK
210-0301

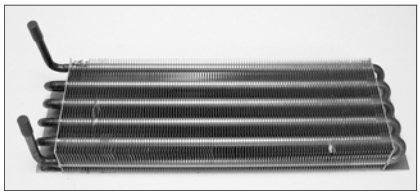


6 POSITION
TERMINAL BLOCK
210-0302

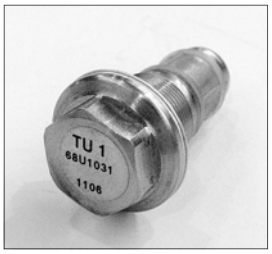
REFRIGERATION COMPONENTS:

REFRIGERANT
COMPRESSOR
260-0055

THERMAL EXPANSION
VALVE
220-0004



EVAPORATOR
COIL
250-0057

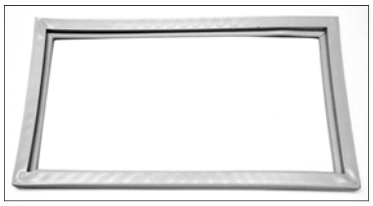


REFRIGERANT TXV
ORIFICE
220-0009

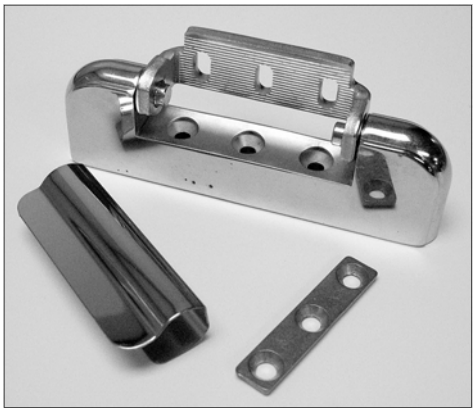
CONDENSER
COIL
250-0061

FILTER
DRIER
220-0029

HARDWARE COMPONENTS:



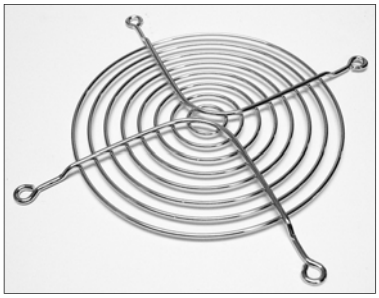
DRAWER GASKET
290-0164



DOOR HINGE
REPLACEMENT
KIT
290-0155

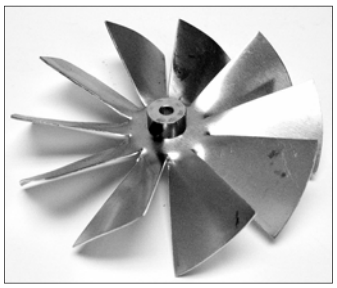
DOOR GASKET
290-0165

CONDENSER FAN
FINGER GUARD AND
MOTOR MOUNT
210-0253



EVAPORATOR COIL
FINGER GUARD
200-0182

(Hardware components—Cont.)



EVAPORATOR
FAN BLADE
210-0315

CONDENSER
FAN BLADE
210-0250

FOOD PAN
1/2 SIZE x 6” D
290-0130

HOW TO OBTAIN ADDITIONAL HELP AND SERVICE:

For warranty, service, contact your local Alfresco Gourmet authorized service agency. Provide us with the Model #, Serial #, date of installation, and a brief description of the problem.
While the unit is within the factory warranty period, all repairs require prior factory authorization before the work is actually performed.
Please contact:

Alfresco Gourmet Grills
Customer Service Department
7039 East Slauson Avenue
Commerce, CA 90040.

Customer Service/Parts Phone: (888) 383-8800 or (323) 722-7900
Fax: (323) 726-4700.